cretes the covering of chitin-like exoskeleton that will remain as the record of the form and position the protoplasm then had. The tips of the pseudopods appear to act somewhat as in forming a scopula, as found in vorticellids as made out by Fauré-Fremiet (1905); the rest of the pseudopod secretes the walls of the horns and then retires into the mass of the ridges. As the ridges secrete their covering it cuts them off from the cavities of the horns, and later when the entire cylinder forms its secreted covering it cuts off the dwelling cavity from the cavities in the ridges from which the plasm retreats into the main mass of the cylinder.

No uses are known for the ridges or the horns. Possibly the ridges might give some protection against the rasping effect of some wandering gastropod's horny teeth. Conceivably the filose activity at the tips of the pseudopods might have some sensory part to play in parking of tests in groups!

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ZOOLOGY.—*A new cyprid ostracod from Maryland.*[1] Edward Ferguson, Jr.,[2] Orangeburg, S. C. (Communicated by Willis L. Tressler.)

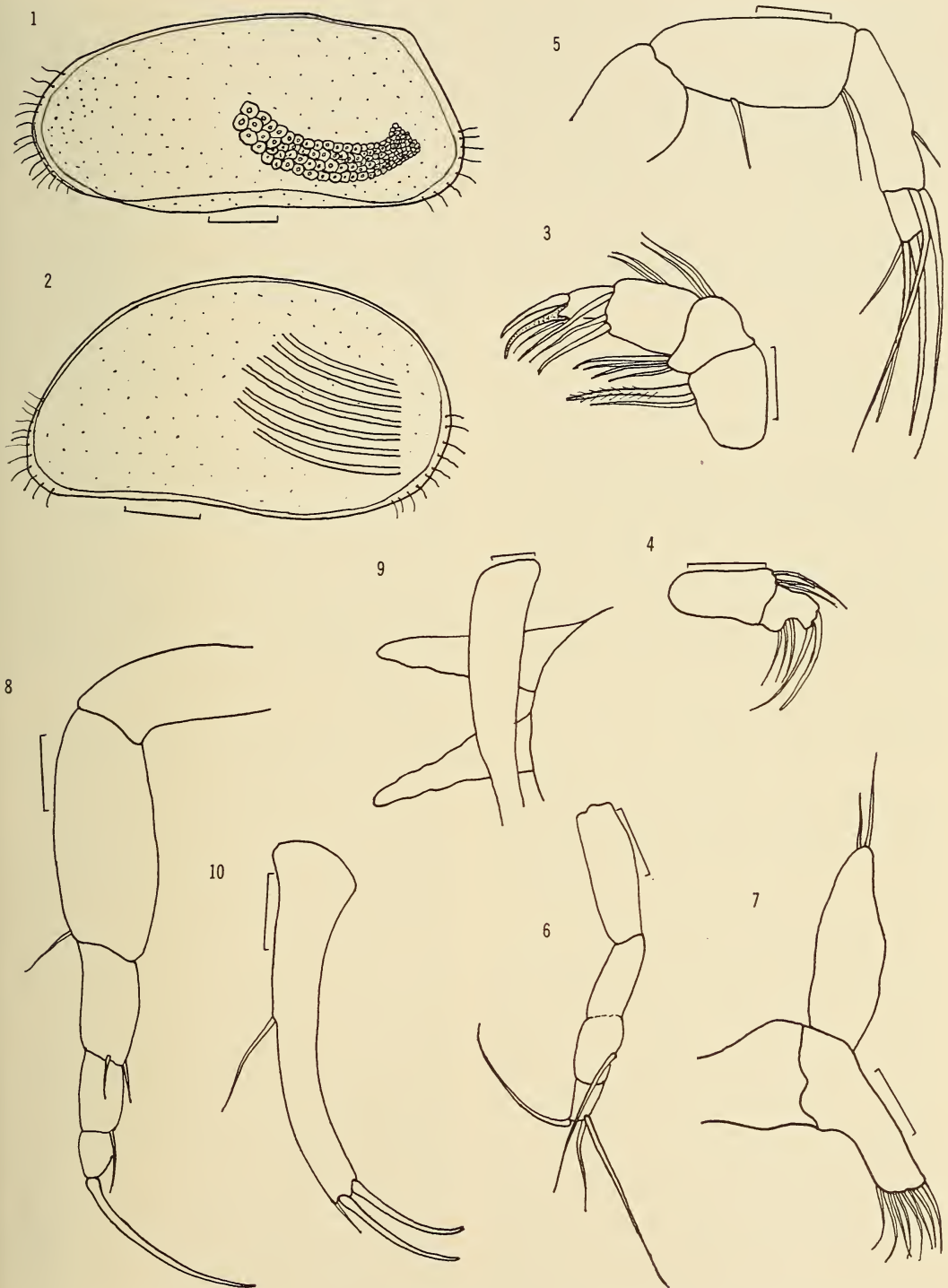
Two females and one male ostracod belonging to a new species of the genus *Candona* were collected during January 1951 from a drainage ditch on Eldon Hall farm near Princess Anne (Somerset County) Md. This paper describes the new species *Candona hoffi*, named in recognition of C. Clayton Hoff, an outstanding contemporary investigator of American fresh-water Ostracoda.

Genus **Candona** Baird, 1845

The valves of members of this genus are white, sometimes transparent, occasionally with a mother-of-pearl sheen. The surface of the valves is smooth, sometimes with hairs. The shape of the shell varies, generally elongated ovoid to reniform and in some representatives the dorsal margin is straight and the ends are truncate. The swimming setae of the antennae are absent; the antenna of the female has five podomeres, and that of the male has six podomeres that result from the division of the penultimate podomere. The penultimate and ultimate podomeres of the mandibular palp are short and rounded. The respiratory plate of the first thoracic appendage is rudimentary, usually provided with two unequal setae, and never with more than three setae. The third thoracic appendage, which frequently has four podomeres, sometimes appears to consist of five podomeres through a division of the penultimate podomere. The terminal podomere of the third thoracic appendage is short and bears two backwardly directed setae. The furcal ramus is exceptionally well developed and bears two strong claws and one or two setae.

[1] A contribution from the Department of Biology of the State A. and M. College, Orangeburg, S. C.

[2] Appreciation is expressed to Dr. Willis L. Tressler, of the United States Navy Hydrographic Office, for his aid in the preparation of the drawings.



Figs. 1–10.—*Candona hoffi*, n. sp.: 1, Lateral view of left valve of female holotype; 2, lateral view of left valve of male paratype; 3, mandibular palp of female paratype; 4, maxillary palp of female holotype; 5, left antenna of female paratype; 6, third thoracic appendage of female holotype; 7, first thoracic appendage of female holotype; 8, second thoracic appendage of female paratype; 9, genital lobes and proximal end of furca of female paratype; 10, left furca of female paratype. (All drawings were made with the aid of a camera lucida from specimens stained with acid fuchsin and mounted in Canada balsam. The scale in Figs. 1 and 2 equals 0.20 mm; the scale in Figs. 3–10 equals 0.40 mm.)

The genus *Candona* has not previously been reported from the State of Maryland. Forty-one species of the genus have been reported from North America; of this number 27 species have type localities in the United States. Turner (1894, 1895) described three species, two from Georgia and one from Delaware. Sharpe (1897) described three species from Illinois. Furtos (1933) reported 12 new species from Ohio; Dobbin (1941) described one new species from the State of Washington, and Hoff (1942) reported eight new species from Illinois.

Candona hoffi, n. sp.

Shell.—From the lateral view the left valve of the female (Fig. 1) has a rounded anterior margin and an almost straight dorsal margin. The posterior margin is truncate, and projects slightly at the postero-ventral angle. The ventral margin has a slight sinuation near the center. A few hairs are present along the anterior border, and also on the ventral margin of the posterior border. The surface of the valve is smooth; numerous irregularly shaped dots are seen in valves stained with a 0.5 percent aqueous acid fuchsin. The shell is widest at or near the center, with the greatest width approximately one-half of the length. The ovaries are located in the postero-ventral region of the valve.

The left valve of the male (Fig. 2) differs in shape from that of the female. The anterior and posterior margins are both rounded. The ventral margin is slightly sinuate near the anterior end; the dorsal margin is convex. Hairs and irregularly shaped dots as in the female. The testes are situated in the posterior part of the shell.

The left valve of the single male specimen measured approximately 1.17 mm in length and 0.74 mm in height. The left valve of the female holotype measured approximately 1.10 mm in length and 0.52 mm in height. The permanent mount of the male specimen was broken accidentally, consequently all descriptions of the appendages are from females.

Cephalic appendages.—The antennules do not show any distinct specific characters.

The antennae have five podomeres; natatory setae are absent. The terminal end of the ultimate and the distal end of the penultimate podomeres each with a spine-like seta (Fig. 5). The sense organ is situated near the proximal end of the antepenultimate podomere.

The mandibular palp (Fig. 3) is composed of four podomeres; the terminal podomere is oval with its greatest width equal to the length. The distal end of the dorsal margin of the penultimate podomere is armed with three setae; the ultimate podomere has two strong terminal spines. A bundle of four setae is situated on the inner margin of the antepenultimate podomere.

The maxilla is composed of three lobes. The maxillary palp (Fig. 4) is formed of two podomeres; the proximal one bears three terminal setae on its dorsal, distal margin. The distal podomere is approximately one-half the length of the proximal one, and bears on its ventral margin three setae of approximately equal length; two spinelike setae are situated on the free end of the distal podomere.

Thoracic appendages.—The first thoracic appendage (Fig. 7) is composed of two podomeres; one podomere is perpendicular to the other. The free end of the vertical podomere bears two unequal respiratory setae.

The second thoracic appendage (Fig. 8) has five podomeres. The antepenultimate podomere is slightly longer than the penultimate one. The second podomere is longer than the combined lengths of the antepenultimate and penultimate podomeres.

The third thoracic appendage bears five podomeres, four of which are shown in Fig. 6. The five podomeres result from the division of the long penultimate podomere. Located on the distal one-third of the penultimate podomere is a long seta that extends well beyond the terminal part of the ultimate podomere. The ultimate podomere bears two long terminal setae of approximately equal length and oppositely directed.

The furca.—The furca (Fig. 10) is well developed and distinctly curved. The length of the ventral margin is approximately 10 times the least width of the ramus. The dorsal seta has a length approximately 3 times the least width of the ramus. The length of the terminal seta is approximately 12 times its least width. The furca has two strong terminal spines of approximately equal length.

Reproductive organs.—The ovaries are located in the postero-ventral region of the valve (Fig. 1). The genital lobe (Fig. 9) is bifurcated; the ventral lobe is slightly longer and more pointed than the dorsal. The lobes project posteriorly between the furcal rami.

Remarks.—The structure of the genital lobes and the bundle of 4 setae on the antepenultimate

podomere of the mandibular palp in *C. hoffi* are diagnostic characters of the Acuminata group. The new species resembles *C. acuta* Hoff, 1942, very closely; however, the two species may be readily distinguished by the structural differences of the reproductive organs. Hoff (1942) describes the ovary of *C. acuta* thus: "The ovary appears as a narrow band, posteriorly much more narrowed than in most Candona." The ovary of *C. hoffi* forms a relatively wide band of uniform width over its entire length. In *C. acuta* the genital lobe as shown by Hoff (1942: fig. 69) is a single rounded structure barely reaching beyond the dorsal ramus of the furca. The genital lobe in *C. hoffi* is bifurcated; the ventral lobe is longer and more pointed than the dorsal. Both lobes extend well beyond the dorsal ramus of the furca.

Type locality.—The type specimens were collected on January 11 and 25, 1951 from a drainage ditch on Eldon Hall farm near Princess Anne (Somerset County) Maryland. The temperature of the air and water was 0 degrees Centigrade on January 25; collections on this date were made from water covered by a thin sheet of ice. The muddy water that was always present also served as the habitat for green algae of several kinds, for numerous rotifers, and for the ostracod *Cypridopsis vidua*.

Type specimens.—The two stained permanent mounts of dissected specimens from which the description of the new species reported in this paper was made have been deposited in the U. S. National Museum, nos. 93561 and 93562.

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MAMMALOGY.—*Three new lemmings* (Dicrostonyx) *from Arctic America.*

CHARLES O. HANDLEY, JR., United States National Museum.

A revisionary study of the varying or collared lemmings of the genus *Dicrostonyx* has shown that three American populations differ from known races by well-marked distinguishing characters and should be recognized by name. I am indebted to the American Museum of Natural History, the Harvard University Museum of Comparative Zoology, the National Museum of Canada, and the University of California Museum of Vertebrate Zoology for the loan of comparative material. In the following discussions, specimens from these museums are indicated by the abbreviations AMNH, MCZ, NMC, and MVZ, respectively, and those from the United States National Museum, including the Biological Surveys Collection, by US. I am particularly grateful to the National Museum of Canada and the U. S. Fish and Wildlife Service for the privilege of designating specimens from the collections in their care as types. Capitalized color terms are from Ridgway, 1912, *Color standards and color nomenclature*. All measurements are in millimeters and are given as averages followed by extremes.

Dicrostonyx groenlandicus clarus, n. subsp.

Type.—U. S. N. M. no. 290952; old adult male, skin and skull; collected June 16, 1949, by Charles O. Handley, Jr.; near sea-level at Cherie Bay, 5.4 miles ENE. of Mould Bay Station, Prince Patrick Island, District of Franklin, Northwest Territories, Canada (lat. 76° 19′ N., long. 119° 02′ W.); collector's number 1285.

Distribution.—The Parry Islands of the Canadian Arctic Archipelago. Specimens are available only from Melville, Prince Patrick, and South Borden Islands, but the range probably includes also Ellef Ringnes Island, the Bathurst Islands, and other smaller islands of this general area. Zonal range: Arctic.

Description.—Adult summer coloration: Mass effect bright gray above; dorsum, except for lighter areas on shoulders, rather uniformly colored from snout to tail; light band on dorsal